

~~TOP SECRET RUFF~~

15 October 1965

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NEW-TYPE INTERFEROMETER SITES

USSR

1. [REDACTED] FIRST REVEALED SIMILAR CONSTRUCTION ACTIVITY
AT THE TYURATAM AND KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTERS
WHICH SUBSEQUENT COVERAGE REVEALED TO BE NEW-TYPE INTERFEROMETERS
UNDER CONSTRUCTION. THERE WAS NO EVIDENCE OF SUCH CONSTRUCTION
ACTIVITY AT THE KAPUSTIN YAR/VLADIMIROVKA MTC ON [REDACTED]
[REDACTED] OR AT THE TYURATAM MTC ON [REDACTED]
2. THE INTERFEROMETERS AT THE KAPUSTIN YAR/VLADIMIROVKA MTC AND AT
THE TYURATAM MTC APPEAR TO BE "L"-SHAPED WITH 2 BASE LEGS, EACH
APPROXIMATELY 2,000 FT LONG, WHICH INTERSECT AT A RIGHT ANGLE.
EACH LEG HAS AN ANTENNA PEDESTAL AT THE OUTER END AND A COARSE,
IN ADDITION TO A FINE ANTENNA MOUNT, NEAR THE POINT OF INTER-
SECTION, GIVING A TOTAL OF 3 ANTENNA POSITIONS ON EACH LEG. TWO
OTHER ANTENNA MOUNTS ARE LOCATED OFF-CENTER AT THE INTERSECTION
POINT. THE CONTROL AREA IS LOCATED APPROXIMATELY 950 FT OFF-CENTER
OF THE BASE LINE INTERSECTION. WAVEGUIDE RUNS, OR POSSIBLY CABLE
TRAYS, EXTEND FROM THE CONTROL AREA TO THE BASE LEG TERMINALS AND
POINT OF INTERSECTION.
4. THIS MISSION REVEALS A NEW-TYPE INTERFEROMETER SITE AT PLESETSK ICBM
COMPLEX, IMMEDIATELY NORTH OF THE ADMINISTRATION AND HOUSING AREA.

These notes have been prepared for briefing purposes only and should not be used for detailed analytical work. Their use should be restricted to the particular briefing board(s) they were prepared for and must be considered valid only for the reporting period as indicated by the date of issue.

GROUP 1
Excluded from automatic
downgrading and
declassification

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THIS IS THE THIRD IDENTIFICATION OF THE NEW-TYPE INTERFEROMETER AND THE FIRST OBSERVED AT A DEPLOYED OPERATIONAL ICBM COMPLEX. THE INTERFEROMETER, IN THE VERY EARLY STAGES OF CONSTRUCTION, IS LAID OUT IN AN "L"-SHAPE AND, WHEN COMPLETE, WILL HAVE 2 BASE LEGS APPROXIMATELY 2,150 FT IN LENGTH, [REDACTED]

[REDACTED] WHEN COMPLETE THE SYSTEM WILL INCLUDE AT LEAST 7 ANTENNAS ALONG THE BASE LEGS, 2 ADDITIONAL ANTENNAS OFF-SET FROM THE CENTROL ANTENNA, A LARGE CONTROL BUNKER CENTRALLY LOCATED APPROXIMATELY 800 FT SOUTH OF THE CENTRAL ANTENNA POSITION, AND 2 CABLE CONDUITS EXTENDING OUT FROM THE CONTROL BUNKER TO THE TERMINAL ANTENNA POSITIONS. THE SITE WAS NOT PRESENT ON KH [REDACTED]

5. A RADIO-FREQUENCY INTERFEROMETER IS A DEVICE USED TO TRACK AN AIR-CRAFT, MISSILE, OR SATELLITE BY PHASE COMPARISON TECHNIQUES - THAT IS, BY DETERMINING THE CHANGING ANGLE OF A RADIO SIGNAL FROM THE TARGET AS IT PASSES OVERHEAD.

THERE ARE NUMEROUS VARIATIONS OF INTERFEROMETERS DEPLOYED BOTH IN THE U.S. AND U.S.S.R. THE INTERFEROMETERS AT THE TYURATAM MTC, KAPUSTIN YAR/VLADIMIROVKA MTC, AND PLESETSK ICBM COMPLEX ARE THE NEWEST TYPE THUS FAR IDENTIFIED IN THE U.S.S.R.

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